

REMARKS

Claims 1-22 and 24-38 are pending in this application. Of these claims, claims 1, 3-5, 8, 9, 14, 16-18 and 23 stand rejected under 35 USC §103(a) as being unpatentable over Hershey et al. in view of Hassan et al; Claims 2 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Hershey et al. in view of Hassan et al. and Nakagawa; Claims 13 and 24 stand rejected under 35 §USC 103(a) as being unpatentable over Hershey et al. in view of Hassan et al. and Olds et al.; Claims 25 and 31 stand rejected under 35 USC §103(a) as being unpatentable over Nakagawa in view of Butler et al.; Claims 6, 7 and 19 stand rejected under 35 USC §103(a) as being unpatentable over Hershey et al. in view of Hassan et al. and Bhat; Claims 10, 11, 20 and 21 stand rejected under 35 USC §103(a) as being unpatentable over Hershey et al. in view of Hassan et al. and Vanden Heuvel et al.; Claims 26-30 and 32-38 stand rejected under 35 USC §103(a) as being unpatentable over Nakagawa; and Claims 12 and 22 stand rejected under 35 USC §103(a) as being unpatentable over Hershey et al. in view of Hassan et al.

In view of the following remarks, these rejections are traversed, and reconsideration of this application is respectfully requested.

Each of Applicant's independent claims 1, 14, 25 and 31 claim a satellite communications system that includes a satellite orbiting the earth, a plurality of receptor terminals on the ground that receive data signals from the satellite, a processing center on the ground for processing the data signals from the satellite, and a terrestrial network on the ground that transmits the data received by all of the plurality of receptor terminals to the processing center. Independent claims 25 and 31 specifically state that the

receptor terminals are receive-only receptor terminals. Applicant respectfully submits that the prior art of record, whether taken alone or in combination, fails to teach this arrangement in a satellite communications system.

U.S. Patent No. 5,878,034 issued to Hershey et al. discloses a spacecraft communications system including a satellite 10 and ground stations 14, 16, 18 and 36. As shown in figure 1 and discussed in the related text, the ground stations 14, 16, 18 and 36 communicate with the satellite 10 through uplink and downlink signals. Each ground station 14, 16, 18 and 36 includes a transmitter that receives data to be transmitted to the satellite 10 from a local source, and a receiver that receives data on the satellite downlink signal that is sent to a local sink, see for example, column 4, lines 22-28.

Applicant submits that the ground stations 14, 16, 18 and 36 do not receive data signals from the satellite 10 and then transmit the signals to a common data processing center on a common terrestrial network. There is no teaching or suggestion in Hershey et al. that the ground stations 14, 16, 18 and 36 are interconnected by a common network on the ground so that data received by the ground stations 14, 16, 18 and 36 can be transmitted on the network to a single data processing center. Therefore, Applicant respectfully submits that Hershey et al. does not teach or suggest a plurality of receptor terminals that receive data signals from a satellite, and put the received data on a terrestrial network for sending the data to the processing center for processing. Therefore, Applicant submits that Hershey et al. alone cannot teach Applicant's claimed invention.

U.S. Patent No. 5,914,942 issued to Hassan et al. discloses a satellite-cellular communications system including a satellite-based transceiver 16, land earth stations 12 and 50, user terminals 24, a network control center 18, base stations 38 and 40 and mobile switching centers 28 and 30. Figure 1 of Hassan et al. only shows the land earth station 12, the network control center 18 and the user terminal 24 communicating with satellites, and not each other. Figure 2 shows an interconnection between some of the components in the satellite communications system with a public service telephone network 32. The Examiner has directed Applicant's attention to column 6, lines 23-42, in Hassan et al., recreated below, to teach a wideband terrestrial network.

Continuing to refer to the system of FIG. 1, land earth station (LES) 12 is operable to communicate with transceiver 16 in a wide band mode (200 kilohertz). UT 24, however, is operable to communicate with transceiver 22 either in a wide band mode or a narrow band mode (50 kilohertz). As LES 12 communicates with network control center (controller) 18 to set up a communication link, controller 18 communicates with telemetric monitoring station 20 to determine system data channel efficiencies and usage. Controller 18 determines whether UT 24 is to communicate in a wide band or narrow band mode as well as what carrier or frequency band UT 24 is to use on the uplink. To illustrate, controller 18 may determine that UT 24 is to communicate with transceiver 22 over a specified channel in communication link 27 in a wide band mode. How controller actually determines which channel or carrier is to be used is known to those skilled in the art. Controller 18 then transmits a control signal over a specified control channel to UT 24 over communication links 23 and 25. The control signal specifies which channel and whether UT 24 is to use a wide band or narrow band mode of operation.

Applicant has carefully reviewed this section of Hassan et al. and can find no teaching therein of a terrestrial network that receives data from a plurality of satellite ground terminals, and transfers the data to a common processing center.

Applicant respectfully submits that a careful review of Hassan et al. does not show a plurality of receptor terminals on the earth that receive data signals from a satellite, and put the data signals on a common terrestrial network to be received by a processing center to be processed. The land earth stations 12 and 50 and the user terminals 24 are connected to the public service telephone network 32 through the mobile switching centers 28 and 30 so that user terminals 24 can communicate with each other using the telephone service. Applicant submits that the interconnection of facilities in Hassan et al. does not teach or suggest that data signals from the satellite are received by a plurality of ground terminals and then transmitted to a common processing center over a terrestrial network. Therefore, Applicant submits that Hassan et al. fails to provide the teaching missing from Hershey et al. to make Applicant's claimed invention obvious.

U.S. Patent No. 5,455,961 issued to Nakagawa discloses a satellite-based communications system including a satellite 1, a ground station 2 and a ground station 3. As is clearly shown in figure 2 and the related text, the ground stations 2 and 3 only communicate with the satellite 1 over various channels ch0, ch1, ch2, etc. to communicate with each other. Therefore Nakagawa does not teach or suggest a plurality of receptor terminals on the ground that receive data signals from a satellite, where the receptor terminals put the data on a terrestrial network to be sent to a common processing center for processing. Therefore, Applicant respectfully submits

that Nakagawa fails to provide the teaching missing from Hershey et al. and others to make Applicant's claimed invention obvious.

U.S. Patent No. 6,643,788 issued to Butler et al. discloses receiver interface circuits 14 and 16 that are part of a satellite ground station 12. Applicant respectfully submits that Butler et al. does not teach or suggest a plurality of receptor terminals on the ground that receive data signals from a satellite, and put the data on a common terrestrial network to be transmitted to a common processing center for processing. Therefore, Applicant submits that Butler et al. cannot provide the teaching missing from Hershey et al. and others to make Applicant's claimed invention obvious.

U.S. Patent No. 6,691,274 issued to Olds et al. discloses a satellite communications system 10 including satellites 12, 14 and 16 and satellite gateways 18 and 20, where the satellites 12, 14 and 16 allow the satellite gateways 18 and 22 to communicate with each other. The gateways 18 and 20 are coupled to external communications network 26 and 28, respectively, through interworking functions 22 and 24, respectively, to allow users to communicate with each other. The specific example given is a subscriber 30 using the communications system to receive video on demand 32.

There is no teaching or suggestion in Olds et al. that the networks 26 and 28 are part of a common network that allows data received by the gateways 18 and 20 from the satellites 12, 14 and 16 to be transmitted to a common processing center. Applicant submits that Olds et al. does not teach or suggest a plurality of receptor terminals on the ground receiving data signals from a satellite, and a terrestrial network that receives the data from the receptor terminals and transmits it to a common processing center for

processing. Therefore, Applicant submits that Olds et al. fails to provide the teaching missing from Hershey et al. and others to make Applicant's claimed invention obvious.

U.S. Patent No. 6,438,374 issued to Bhat discloses a wireless communications servicing network 2 including base stations 6 and 8 and a mobile switching center 4 that communicate with a telephone network 14. The Bhat network is not a satellite communications system, and therefore does not teach or suggest a plurality of receptor terminals receiving data signals from a satellite, and a terrestrial network that transmits the satellite data to a common processing center for processing. Therefore, Bhat also fails to provide the teaching missing from Hershey et al. and others to make Applicant's claimed invention obvious.

U.S. Patent No. 5,924,014 issued to Vanden Heuvel et al. discloses a satellite-based communications system 30 including ground stations 14, a system control center 13 and communication nodes 12. Column 3, line 61 – column 4, line 6 discusses terrestrial link facilities 24 that allow data packets to be transmitted to and from the ground stations 14 through, for example, fiber optic cables, microwave networks, T1 or other wireless networks. The ground stations 14 are also connected to a public switch telephone network (PSTN) 32. However, what Vanden Heuvel et al. does not teach or suggest is a plurality of ground stations that receive data signals from a satellite, and then transmit the data signals to a common processing center over a terrestrial network. In Applicant's claimed invention the receptor terminals do not communicate with each other, but are connected to a common terrestrial network to transmit data to a common place. Vanden Heuvel et al. does not teach or suggest such a terrestrial network, and does not teach or suggest a single processing center that receives data signals from a

plurality of receptor terminals over a network. Therefore, Applicant submits that Vanden Heuvel et al. fails to provide the teaching missing from Hershey et al. to make Applicant's claimed invention obvious.

Applicant submits that the basic invention set forth in independent claims 1, 14, 25 and 31 claims a satellite communications system that includes a satellite orbiting the earth that detects certain information, such as weather data. As the satellite orbits the earth, it transmits that data to an array of terminals on the ground where one or more of the terminals may be in the range of the satellite transmission at any given point in time. When a terminal receives the data signal from the satellite, it transfers the data to a processing center for processing. The plurality of terminals use the same terrestrial network to transmit the data they receive to the same processing center. Applicant submits that the various satellite based communications system disclosed in the prior art of record, most of which are cellular phone systems and most of which include ground stations that transmit signals back to the satellite, do not teach or suggest this basic principle of collecting and processing data from an orbiting satellite.

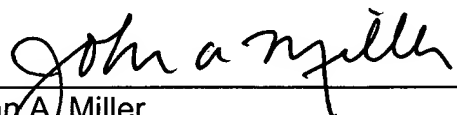
In view of the preceding remarks, it is respectfully requested that the §103(a) rejections be withdrawn.

It is now believed that this application is in condition for allowance. If the Examiner believes that personal contact with Applicant's representative would expedite prosecution of this application, she is invited to call the undersigned at her convenience.

Respectfully submitted,

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